AD					

Award Number: W81XWH-04-1-0026

TITLE: Increasing Early Detection of Prostate Cancer in African American Men through a Culturally Targeted Print Intervention

PRINCIPAL INVESTIGATOR: Hayley Thompson, Ph.D.

CONTRACTING ORGANIZATION: Mount Sinai School of Medicine New York, New York 10029-6574

REPORT DATE: March 2007

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control parts. PLEASE DO NOT PET LIPA VALID FORMER ADDRESS.

		JR FORM TO THE ABOVE ADDI	RESS.		, , ,
1. REPORT DATE (DI	•	2. REPORT TYPE			DATES COVERED (From - To)
01-03-2007		Annual			Mar 2005 – 28 Feb 2007
4. TITLE AND SUBTIT	LE			5a.	CONTRACT NUMBER
Increasing Early D Culturally Targeted		e Cancer in African	American Men throu	WE	GRANT NUMBER 31XWH-04-1-0026 PROGRAM ELEMENT NUMBER
6. AUTHOR(S)				5d.	PROJECT NUMBER
Hayley Thompson	, Ph.D.			5e.	TASK NUMBER
E-Mail: hayley.tho	mpson@mssm.ec	l <u>u</u>		5f. \	WORK UNIT NUMBER
7. PERFORMING ORG Mount Sinai School New York, New Yo	ol of Medicine) AND ADDRESS(ES)		_	PERFORMING ORGANIZATION REPORT IUMBER
9. SPONSORING / MC U.S. Army Medica Fort Detrick, Mary	I Research and Ma	NAME(S) AND ADDRESS ateriel Command	S(ES)	10.	SPONSOR/MONITOR'S ACRONYM(S)
, , , , , , , , , , , , , , , , , , , ,	S.1.0 = 17 0= 00 1=				SPONSOR/MONITOR'S REPORT NUMBER(S)
13. SUPPLEMENTAR	Y NOTES				
14. ABSTRACT					
Prostate cancer (PCa) higher mortality is due test (PSA) and digital r screening starting at a AA men are critical. Al addressed culturally re culturally targeted (CT)	to the greater likelihood ectal exam (DRE), has ge 45 for AA men, scree though culturally target levant factors in PCa so print intervention on P	I of AA men to be diagnost been shown to increase of ening among AA men is lot ed health interventions had creening among AA men. Ca screening participation	sed with advanced-stage early-stage diagnoses. A ow. Indeed, interventions ave been found to be effe The primary aim of the p n among AA 410 men thr	PCa. PCa scree although several of s to increase scree ective there are no proposed study is ough a randomize	groups. There is compelling evidence that ning, specifically prostate-specific antigen rganizations recommend annual PCa ening and the early detection of PCa among interventions that have systematically to develop and evaluate the impact of a ed controlled trial. The proposed research intervention impacts screening participation.
15. SUBJECT TERMS Prostate cancer, Africa		Intervention, Education			
16. SECURITY CLASS	SIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON USAMRMC
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U	UU	7	19b. TELEPHONE NUMBER (include area code)

Table of Contents

Introduction	4
Body	5
Key Research Accomplishments	
Reportable Outcomes	
Conclusions	
References	
Appendices	7

INTRODUCTION

Prostate cancer (PCa) is the leading cause of cancer among American men and African American (AA) men carry a disproportionate amount of this burden. PCa incidence and mortality is 60% and 123% higher, respectively, than that of white men (1;2). It has been proposed the higher mortality rate is due to the possibility that PCa has unique disease characteristics in AA men (3). However, there is compelling evidence that higher mortality is due to higher likelihood of advanced-stage diagnosis (4;5) as AA men are more likely to be diagnosed with PCa at a more advanced stage compared to whites (2). A 2003 report on PCa trends from 1969-1999 (6) revealed that widespread PCa screening - specifically the prostate-specific antigen test (PSA) - led to a marked increase in early-stage diagnoses in the 1980s and was followed by a decline advanced-stage mortality. In other words, as early-stage diagnoses increased, advanced-stage diagnoses decreased, thereby decreasing deaths from advanced-stage disease. In light of the higher rates of advanced-stage diagnosis and mortality among AA men, the promotion of early detection of PCa through screening has the potential to reduce significant ethnic disparities in cancer. The majority of organizations agree that the benefit of routine screening may be larger among AA men and half recommend that AA men should be offered annual screening in their 40's (7;8). Unfortunately, there is considerable evidence that AA men are less likely to be screened compared to White men (9-13). There are relatively few PCa screening interventions that focus on AA men and these have resulted in only modest increases in screening. One explanation may be that none have systematically addressed culturally relevant factors in PCa screening, even though culturally targeted (CT) health interventions are reported to be more effective than generic interventions. Therefore, it is important to investigate whether a CT intervention is more effective in increasing PCa screening than a generic intervention. The importance of culturally relevant factors is supported by social identity theory (SIT), which defines social identity as that part of the one's self-concept that derives from their knowledge and evaluation of membership in a social group (14). This study is also guided in the Theory of Planned Behavior (TPB) (15). TPB posits that behavior is predicted by several variables: intention to engage in a behavior; attitudes (one's evaluation of a behavior); perceived group norms (one's perception of reference group desires that the individual participate in the behavior); and perceived behavioral control (one's appraisal of his or her ability to engage in the behavior). Studies have reported that attitudes, norms, and behavioral control were significant predictors of intention to participate in cancer screening (16) and intention was the strongest predictor of actual participation (17). This is consistent with findings that intention to participate in PCa screening significant predicted screening participation (18).

In the current research, we expect that the association between the CT intervention and adherence to PCa screening guidelines will be mediated by screening intention, attitudes, perceived group norms and behavioral control over screening, as well as PCa knowledge and perceived risk. In other words, individuals who will be most likely to participate in screening following an intervention are those who experience substantive changes in these variables. For reasons addressed by social identity theory, it is also proposed here that a CT intervention will lead to greater changes in these mediating variables and therefore have a greater impact on screening participation. The identification of culturally relevant factors that may be addressed in a PCa screening intervention is essential. Additionally the study will examine three important culturally relevant factors to include in a PCa screening intervention, medical mistrust, and collectivism.

HYPOTHESES: The objectives of the proposed research are to: 1) develop and evaluate the impact of a culturally targeted (CT) print intervention on prostate cancer (PCa) screening participation in a sample of 410 AA men through a randomized controlled trial, and 2) to investigate the mediational pathways (i.e., mechanisms) through which the culturally targeted print intervention impacts screening participation. Hypothesis 1: Participants in the CT condition will report greater PCa screening participation following that intervention compared to men in the generic intervention condition. Hypothesis 2: Men in the CT intervention will report greater changes in screening intention,

attitudes, group norms, behavioral control, PCa knowledge and perceived PCa risk, and these variables will mediate the impact of the CT intervention on screening participation. Exploratory Hypothesis 1: Culturally relevant variables will moderate the impact of the CT intervention such that men with stronger ethnic identity, medical mistrust, spiritual faith, and collectivist attitudes will benefit more from the culturally targeted intervention.

BODY

Since February 2006, we have addressed the following tasks outlined in the SOW: 1) recruit participants, conduct baseline assessments for randomized controlled trial evaluating a culturally targeted print intervention with a generic print intervention; 2) conduct follow-up assessments; 3) conduct six-month follow-up interviews. In November 2006, the amendment to our protocol allowing us to change our recruitment strategy was approved. Since that time, 62 participants were consented to the study. Six-month follow-up data was collected from 9 of these men. We also received a one-year no-cost extension in February 2007. Please note that since that extension and approval of protocol renewal by the Mount Sinai IRB, we have consented an additional 14 men. Furthermore, we have screened an additional 40 men who are eligible and will be scheduled to attend a data collection session within the next 1-2 months and we have over 132 men interested in the study and waiting to be screened. If we include men who were part of pilot work to test the new recruitment strategy, we have baseline data for 127 men and 6-month data for 42 men.

The SOW also included interim data analyses, report and presentations. Due to changes in our recruitment strategy and insufficient data, this part of the SOW was not completed. However, final data analyses, report and presentations will be completed in this no-cost extension year as indicated in the SOW.

KEY RESEARCH ACCOMPLISHMENTS

- 1. Successful and ongoing recruitment of men to participate in RCT.
- 2. Administration of 127 baseline and follow-up assessments
- 3. Administration of 42 six month follow-up assessments

REPORTABLE OUTCOMES

To date, we have no reportable outcomes. As stated above, final data analyses, report, and presentations will be completed in this no-cost extension year as indicated in the SOW.

CONCLUSIONS

Our amended recruitment strategy has proved extremely successful and we will continue recruitment, baseline and follow-up assessment, and 6-month assessment. We now have sufficient data to begin data analysis and we will more actively pursue publication and presentation opportunities.

REFERENCES:

- (1) Andersen M, Smith R, Meischke H, Bowen D, Urban N. Breast cancer worry and mammography use by women with and without a family history in a population-based sample. Cancer, Epidemiology, Biomarkers and Prevention 2003; 12:314-320.
- (2) Stanford JL, Stephenson RA, Coyle LM, Cerhan J, Correa R, Eley JW et al. Prostate Cancer Trends 1973-1995. NIH Pub. No. 99-4543 ed. Bethesda, MD: National Cancer Institute, 1999.

- (3) Thompson IM, Tangen CM, Tolcher A, Crawford ED, Eisenberger M, Moinpour CM. Association of African American ethnic background with survival in men with metastatic prostate cancer. Journal of the National Cancer Institute 2001; 93:219-225.
- (4) Merrill RM, Lyon J.L. Explaining the difference in prostate cancer mortality rates between white and black men in the United States. Urology 2000; 55(5):730-735.
- (5) Hoffman RM, Gilliland FD, Eley JW, Harlan LC, Stephenson RA, Stanford JL et al. Racial and ethnic differences in advanced-stage prostate cancer: the Prostate Cancer Outcomes Study. J Natl Cancer Inst 2001; 93(5):388-395.
- (6) Chu KC, Tarone RE, Freeman HP. Trends in prostate cancer mortality among black men and white men in the United States. Cancer 2003; 97(6):1507-1516.
- (7) Smith R.A., von Eschenbach AC, Wender R, Levin B, Byers T, Rothenberger D et al. American Cancer Society Guidelines for the Early Detection of Cancer: Update of Early Detection Guidelines for Prostate, Colorectal and Endometrial Cancers. CA A Cancer Journal for Clinicians 2002; 52(1):8-22.
- (8) American Urological Association. Prostate-Specific Antigen (PSA) Best Practice Policy. Oncology 2000; 14(2):267-286.
- (9) Weinrich SP, Boyd MD, Weinrich M, Greene F, Reynolds WA, Metlin C. Increasing prostate cancer screening in African American men with peer- educator and client-navigator interventions. J Cancer Educ 1998; 13(4):213-219.
- (10) Weinrich SP, Reynolds WA, Jr., Tingen MS, Starr CR. Barriers to prostate cancer screening. Cancer Nurs 2000; 23(2):117-121.
- (11) Tingen MS, Weinrich SP, Heydt DD, Boyd MD, Weinrich MC. Perceived benefits: a predictor of participation in prostate cancer screening. Cancer Nurs 1998; 21(5):349-357.
- (12) Steele CB, Miller DS, Maylahn C, Uhler RJ, Baker CT. Knowledge, attitudes, and screening practices among older men regarding prostate cancer. Am J Public Health 2000; 90(10):1595-1600.
- (13) Demark-Wahnefried W, Strigo T, Catoe K, Conaway M, Brunetti M, Rimer BK et al. Knowledge, beliefs, and prior screening behavior among blacks and whites reporting for prostate cancer screening. Urology 1995; 46(3):346-351.
- (14) Tajfel H.: Social categorization, social identity, and social comparison. Human Groups and Social Categories. Cambridge: Cambridge University Press, 1981.
- (15) Ajzen I. The theory of planned behavior. Organizational Behavior and Human Decision Processes 1991; 50:179-211.
- (16) Michels TC, Carter WB, Taplin SM, Kugler JP. Barriers to screening: The Theory of Reasoned Action applied to mammography use in a military benificiary population. Military Medicine 1995; 160(9):431-437.
- (17) Rutter DR. Attendance and reattendance for breast cancer screening: A prospective 3-year test of the Theory of Planned Behavior. British Journal of Health Psychology 2000; 5:1-13.

(18) Myers RE, Chodak GW, Wolf TA, Burgh DY, McGrory GT, Marcus SM et al. Adherence by African American men to prostate cancer education and early detection. Cancer 1999; 86(1):88-104.

APPENDICES:

There were no relevant appendices for the past year.

PRINCIPLE INVESTIGATOR:

Hayley Thompson, PhD Assistant Professor Mount Sinai School of Medicine Program for Cancer Prevention and Control Department of Oncological Sciences One Gustave Levy Place, Box 1130 New York, NY 10029-6574

Telephone: 1-212-659-5648 Fax: 1-212-659-5507

Email: Hayley.thompson@mssm.edu